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ABSTRACT

Intended to provide information about the development of the Economics Values Inventory (EVI), the report describes considerations that directed development of test items and provides indicators of the reliability and validity of the proposed test instrument. The EVI is recommended as an effective measuring instrument in experimental evaluations of group changes in economic attitudes and values, as well as in other settings in which young people's economic attitudes and values are of interest. Over 35 classrooms from 18 secondary schools (inner city, suburban, rural, public, private, and parochial) in 12 cities across the country participated in this research. Following an introduction in section 1 of the report, section 2 reports on the goals of the research. Section 3 focuses on item development while section 4 is devoted to focus groups and pretests. In sections 5 and 6, pilot study findings are presented concerning the reliability and validity of the EVI. Following a summary (section 7), section 8 focuses on senior high school students as a point of comparison. Conclusions and recommendations in section 9 are accompanied by 16 tables and a list of references. Appendices include the EVI instrument, the EVI for classroom use, the senior high version of the EVI, and individual test item means for junior and senior high school respondents. Findings indicate that the EVI is an easy-to-administer measure of economic attitudes and values with subscales of moderate reliability that cover a range of economic topics and show evidence of strong construct validity. (LH)

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Foundation for Teaching Economics Report: The Development of the Economics Values Inventory

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REPORT TO THE FOUNDATION FOR TEACHING ECONOMICS ON THE DEVELOPMENT OF THE ECONOMICS VALUES INVENTORY

1. INTRODUCTION

This is the report of the development of a measure of young people's attitudes and values with respect to economic issues. The report describes the substantive considerations that directed development of test items, and provides indicators of the reliability and validity of the proposed instrument.

Although the primary purpose of this report is to provide information about the measure itself, the research necessarily produced information about the content of the attitudes of the study respondents, and this information is reported as well. Thus, as data are presented on the relationship between respondents' socioeconomic status and their economic values, for example, the content--the specific nature and direction--of values is discussed (as it covaries with socioeconomic status).

The reader is cautioned that the substantive findings on youths' values, however interesting in themselves, are not necessarily representative of the economic values held by young people in general. No attempt was made to develop this measure on a statistically random, i.e., representative, sample of American youth. The sampling goal was in fact to obtain responses from as diverse a group of young people as possible, in order to assess the extent to which the measure "works"--is valid--for very different kinds of people.

Thus, over 35 classrooms, from 18 schools in 12 cities across the country participated in this research. Inner-city, suburban and rural schools, public schools, private and parochial, serving single neighborhoods or as city-wide "magnets," were included. Schools from the mid-west, the east, the south, the north and the western regions of America participated in the study. Over one thousand students--Blacks, Whites, Hispanics, Asian-Americans, American Indians and others--responded to the measure.

The result is the Economics Values Inventory (EVI), an easy-to-administer measure of economic attitudes and values, with subscales of moderate reliability that cover a range of economic topics, and show evidence of strong construct validity. It is recommended as an effective measuring

instrument in experimental evaluations of group changes in economic attitudes and values, as well as in other settings in which young people's economic attitudes and values are of interest. We further recommend that developmental work continue during initial applications of the EVI. Specifically, new items should be added to the shorter scales and the results assessed for their contributions to scale reliabilities, and additional evidence of construct validity should be documented.

2. GOALS OF THE RESEARCH

2.1. The Development of Valid and Reliable Multi-Item Scales

The Economics Values Inventory (EVI) was developed as the first step of a larger project to evaluate the impact of the text, Our Economy, upon the economic values and attitudes of students. The primary goal in developing the EVI, then, was to be sure that the test items adequately covered the range of topics in the book which might have an impact on values, and to demonstrate that these items, and the scales they combine to form, are valid and reliable indicators of junior high school students' views on these topics. This primary goal had three distinct components.

2.1.1. Develop Multi-Item Scales

The first methodological goal was to develop a measure of economic values that would be made up of multi-item scales, each of which measured a specific content or thematic area of economic attitudes. The reason for multi-item rather then single-item indicators makes intuitive sense: any one particular item may be only a flawed indicator of the construct, whereas a set of converging items is less likely to contain a serious flaw.

In mathematical terms, the concern with using a single-item indicator is that individual items have measurement error. There is some randomness related to any item--attention wanders and an answer is skipped, some aspect of content triggers an association for one child and not another, the item is read in haste, or contains words not in the respondent's vocabulary, and is thus not understood, and so on. Consequently, the individual item cannot be trusted to give reliable measurement of an attitude.

The assumption in multi-item scales is that errors in measurement will be random, that is, will cancel each other out, and "the average of all the measurements is a better estimate of the true value than any single one" (Bohrnstedt, 1983). Thus, almost all measures of psychological attributes, such as attitudes and values, are multi-item measures (Nunnally, 1967).

Just as multi-item scales were a goal, so too were multiple scales, rather than a single "economic values and attitudes" scale, although for different reasons. The final EVI measure had to be sensitive to any distinct and uncorrelated topics that might exist for young people within the general topic area. For example, it is possible, although unknown in advance, that

attitudes toward labor unions are independent of attitudes toward business owners, that is, attitudes toward one cannot be predicted on the basis of knowledge of attitudes toward the other, so that they cannot be summed as if they were elements of a single scale, "attitudes toward business owners and labor unions." Separate scales for each would be required for accurate measurement.

Possible scale topics were postulated a priori, to guide the creation of individual attitude items, and which would be confirmed, discarded and/or supplemented, as the findings warranted. (The a priori scale topics are described below in section 3).

A set of statistical procedures known as factor analysis was used to detect the distinct content areas, factors, or scales among the items as junior high school students responded to them. The scales were then subjected to statistical tests of reliability (see Section 2.1.2).

2.1.2. Develop Reliable Scales

The second methodological goal was to develop scales that are reliable, that is, that have minimal measurement error. "Reliability concerns the extent to which measures are repeatable--by the same individual using different measures of an attribute or by different persons using the same measure of an attribute" (Nunnally, 1967, 172).

Test items are unreliable when their meaning is ambiguous or response categories are inadequate or inappropriate. For example, "Did you go to church last week?" is a question likely to yield highly reliable answers: a simple yes or no response is all that is required, and the respondent does not have to think back over a long period of time during which memory could "decay." In contrast, "How many times in the last year did you go to church?" will yield less reliable answers because the possible range of responses is very great (people could go to church every day, never, a few times a year, every week except when on vacation, etc., and must translate their year's attendance into a specific number) and memory over a period of a full year may be inaccurate. Considerable error--i.e., unreliability--is thus more likely in responses to this question.

The measure of reliability that is routinely applied to new tests is Cronbach's alpha or coefficient alpha. In mathematical terms, it represents

the expected correlation of one test with an alternative form containing the same number of items (although no alternative form is actually required for the calculation of coefficient alpha).

What a satisfactory level of reliability is depends on how a measure is being used:

> In the early stages of research on predictor tests or hypothesized measures of a construct, one saves time and energy by working with instruments that have only modest reliability, for which purpose reliabilities of .60 or .50 suffice . . . For basic research, it can be argued that increasing reliabilites beyond .80 is often wasteful. (Nunnally, 1967, 226).

The goal for reliabilities for this stage of EVI development was a minimum of .50.

Another commonly-reported statistic designed to indicate a measure's reliability is the test-retest correlation, in which the same test is given to the same people after a period of time, and the correlation of the two scores is the reliability of the test. Many measurement experts point to problems with test-retest reliability estimates, however. For example, if the interval between tests is short, respondents may remember their earlier responses, making them appear more consistent with respect to true content than they in fact are. Another problem is that true change cannot be distinguished from unreliability, and as the time between measurements becomes very great, the chances that respondents will have actually changed on the underlying variable increase. Nunnally (1967) recommends that the "test-retest method generally not be used," but goes on to note some exceptions to this admonition: when the sheer number of responses required would make remembering responses to individual items very difficult, and "if there was a long time between testings, say, six months or more" (p.225). The latter condition, of course, returns us to the problem of interpretability (true change vs. unreliability).

Despite its problems, the test-retest reliability correlation is often included in reports of the performance of new measures. It was not included in the present research because time was too limited to allow retesting of the participating classes with the final proposed form of the EVI. If the sponsors of the EVI wish the test-retest correlation to be calculated, the proposed next stage of the research, which we urge be viewed as a continuation of instrument development efforts as well as an evaluation of Our Economy,

affords an opportunity for computing this form of reliability. The control groups of students--that is, students tested at the start and finish of a school term, but who receive no economics instruction, and thus whose values we would not expect to change--provide an excellent situation for assessing the EVI's test-retesting reliability.

2.1.3. Demonstrate the Validity of the Scales

The final methodological goal was to demonstrate the validity of the obtained scales. In a general sense, valid measures are those that are useful--they do what they are intended to do. They look like we expect them to look (i.e., they have "face validity"), they measure the range of topics that we intend that they measure (i.e., they have "content validity"), and most important with measures of abstract constructs like values and attitudes, the scores they yield relate to measures of other, different variables in predictable, theoretically meaningful ways (i.e., they have "construct validity").

The major standard for ensuring face and content validity is "sensible" methods of test construction (Nunnally, 1967), that is, making explicit the concerns and criteria that guided the selection of specific areas of content. Section 3 of this report describes the method of test construction for the EVI.

The third and most important form of validity for this measure, construct validity, is also a property established by inference rather than direct measurement. The major standard for content validity is evidence of a logical and predictable relationship between scores on the measure of interest and scores or values on some other variable. Thus, ancillary information is necessary for the determination of the extent of an instrument's construct validity. For example, if we were developing a measure of intelligence, we might gather evidence of the measure's validity by examining the relationship between the measure's scores for a group of children and the children's ability to solve puzzles, their grades in school, the complexity of their vocabulary, and so on. In general, our intelligence measure would show greater construct validity to the extent that high intelligence scores are associated with greater puzzle-solving, higher grades, and a more complex vocabulary.

As this example may make apparent, "[v]alidity is a matter of degree rather than an all-or-none property, and validation is an unending process" (Nunnally, 1967). Our research on the EVI gathered evidence of the measure's construct validity by examining the relationship between EVI scale scores and a wide range of other variables, and initial applications of the measure should continue to gather such evidence. Section 6 presents the evidence of the EVI's construct validity.

2.2. Assessment of the EVI's Usefulness with Other Populations

A second broad goal of this research was to determine whether the measure is suitable for use with older individuals, so that its general utility might be known. The final section of this report describes results of research with senior high school students and the EVI.

2.3. A Change in Plans: Dropping Parallel Forms

It was suggested in NORC's research proposal to FTE that parallel forms of the EVI be developed as one goal of the research. Analyses of responses from over 400 students, at a mid-point of the study, indicated that the use of parallel forms for measuring Our Economy's values impacts would be ill-advised.

Parallel forms or parallel measures are two measures that are assumed to reflect the same underlying true score on an attitude construct. The usefulness of parallel forms lies in their ability to circumvent the problem of artificial consistency between scores. As Bohrnstedt (1983) puts it, "If one can be satisfied that two forms are reasonably parallel, their employment across time reduces the degree to which respondents' memory can inflate the [correlation between pretest and posttest scores]" (p.80). Parallel forms were suggested in NORC's proposal to guard against this possibility in the pre- and posttesting of youth in evaluating the text.

We now believe that youngsters could not recall their pretest responses over a period of months of instruction, and that they have little incentive to do so. Once a pool of items was created and responses to them were examined, it became apparent that the items were too numerous and detailed, and covered too many topics, to be remembered over time. It was also apparent that consistency was not a salient concern to the students,

because of the amount of inconsistency they tolerated among their responses within a single testing period.

We have a more substantive reason for dropping parallel forms, as well. Responses revealed that relative to older students, younger students have less firmly-held and well-crystallized values: They were more likely to show a response tendency to agree with items, they gave more "Don't know" and mid-point (neither agree nor disagree) responses, and they made less sharp distinctions between topics areas covered by the items (see section 8). They also interpreted some items differently. For example, the statement, "Businesses will do anything for a profit" was statistically associated with many pro-business statements for older youth, whereas younger students viewed the statement as consistent with anti-business sentiments, such as, "Most companies don't give employees a fair share of what the company earns."

The possibility of items changing meaning over time would likely be amplified in groups measured first with no economic instruction and again after a full term of instruction with the text. For example, a single word, like "profit", could change from an emotion-charged buzz word heard only on TV accounts of big-business "exploitation", to a neutral-to-positively shaded factual understanding after studying economics. To the extent that the meaning of this word changed for students before and after instruction, the EVI items that use the word would also take on new meanings and shadings. We would be far more confident of detecting these changed meanings if students responded to exactly the same questionnaire items at each testing. Thus, we developed a single-form EVI.

3. ITEM DEVELOPMENT

The primary purpose of the EVI is to measure any changes in values and attitudes that may come about as the result of study with the text, Our Economy. The text sponsors would like the book to have impacts on values in specific ways. Thus the development of the measure began with the articulation of the impacts which the sponsors would hope the text might have.

First, it would be desirable if the text led to increased student awareness of their being an important component of the economy; increased appreciation of the roles that individuals play as consumers and workers; and to greater feelings of personal efficacy.

Second, more positive views of business should result from study with the text.

Third, views about the appropriate role for government in the economy should be affected, in the direction of more qualified support for a strong government role.

Fourth, the free enterprise system, including competition, openness to technological innovation, and basic freedoms of personal choice and individual opportunity, should be given greater support.

Once these broad goals were defined, it remained to develop a pool of several hundred attitude and value statements, or items, that would represent specific instances of these themes, so that multi-item scales could be developed. Respondents to the test would indicate their own attitudes and values by indicating the degree of agreement or disagreement they felt toward each item. The items had to allow expression of a full spectrum of economic opinion as well, so that, for example, every pro-free-enterprise item was counterbalanced by an anti-free-enterprise alternative, every pro-business item an anti-business item, and so on. In addition, they were by design written to be either moderately positive or moderately negative in tone. (The avoidance of neutral and extreme statements, and the balancing of positive and negative, are standard methodological canons of item pool development in attitudinal research--see, for example, Nunnally, 1967, p.532).

The text was the primary source of inspiration for the content areas covered by the items. Over twenty substantive themes--the importance of savings, risk, specialization, new technology, limited resources, and others--became the bases of items. The Teacher's Guide for Our Economy served as a check on the thoroughness of our extraction of value concerns from the text. In particular, this book's chart of major economic and related interdisciplinary concepts (itself adapted from the Joint Council for Economic Education's 1977 Framework for Teaching Economics) and the chart of economic generalizations, were closely scrutinized for topic areas which satisfied the dual criteria of valuational import and comprehensibility to youth in the relevant age range.

There was a paucity of material which dealt directly with economic attitudes and values among youth. The virtually encyclopedic survey of social

psychological attitude measures compiled by Robinson and Shaver (1973), for example, contains no measures for economic values and attitudes. Some preliminary and very limited attempts at developing economic value and attitude scales were, however, found. The three-part (business, labor unions, American economic system) scale of Jackstadt and Brennan (n.d.) was a useful point of reference, as was the Economic Attitudes Questionnaire developed for the Indianapolis evaluation of "The People on Market Street" (Education Research Council, 1979). However, the usefulness of these measures was severely limited by the fact that their content was not specifically geared to the needs of an evaluation of Our Economy, by the fact that there was little supporting evidence for the reliability and validity of the items, and by the fact that neither satisfied the multiple conditions of focusing on a maximally diverse national sample of the junior high school age group.*

Literature in related areas was also considered, particularly work which examined the political attitudes and values of youth. Kenneth Langton's Political Socialization (1969) was one such source dealing with secondary school students. David Easton's and Jack Daniels's work on younger children in Children in the Political System (1969) gave assurance of the reasonableness of attempting to find and measure values and attitudes among youth in the 11-13 years old age group.

A final source of items was that of psychological scales. The classic works on values by Allport (1960) and Rokeach (1973) were reviewed for relevant items as well as for their discussions of methodological issues in measuring values. The alienation items used in NORC's General Social Survey were adapted for use as measures of feelings of economic efficacy and powerlessness. Rotter (and modified Rotter) scales of internal versus external locus of control were reviewed, and items adapted from them as appropriate (Lefcourt, 1983). Items were chosen which had economic reference or which could be recast in economic terms. Psychological items were included because

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*That the study of adolescent values and attitudes must encompass a wide diversity of settings is particularly underscored by the recent work of Dr. Francis Ianni on the role of home, school and community in adolescent education (Collins, 1984). Ianni found that American adolescents are not a single distinct attitudinal population, but differ significantly in their values and attitudes according to whether the community of their residence is urban, suburban, or rural. His conclusions lend strong support to the strategy of focusing on the widest range of environments.

of the sponsor's interest in Our Economy's impact on young people's perceptions of their own ability and responsibility in the economic arena.

Using these sources, over 250 items were initially developed. Through discussion and review with the Foundation staff, overly complex, ambiguous, weak and redundant items were eliminated or refined, and new items, covering further economic topics, were generated. The best 150 of these were then taken to the experts--junior high school youth, for the first round of empirical testing of the items.

4. FOCUS GROUPS AND PRETESTS

A two-phase research process of, first, focus group review and pretesting, and second, pilot-testing the items, produced the final 44-item EVI. Section 4 describes the first phase of empirical research on the items.

4.1. Focus Groups

Focus groups of seventh, eighth and ninth graders discussed the 150 items, reviewing them for inappropriate language, complexity, and possibilities for misinterpretation. The students provided alternative phrasings for many items, and dismissed others altogether as too complex or abstract. The focus groups also made clear the need to preface the measure with basic introductory material that would provide all respondents with a common starting point for understanding what is meant by the topic, "economics."

The questionnaire was subsequently revised, to consist of 136 economic values and attitudes statements, and a small number of questions about respondents' school, grade, age, race and sex.

4.2. Pretest One

The goal of the first pretest was to obtain an initial reading on the items from approximately 200 respondents, diverse with respect to race, socioeconomic background, grade (7-8), age, sex, and school. Four Chicago-area schools were selected for Pretest One: an inner-city all-Black public school; a mixed-race, urban, middle income private Montessori school; an all-White, ethnic, blue-collar urban parochial school; and a suburban, predominantly White, upper income private school. Table 1 summarizes the characteristics of the pretest schools.

Several criteria for revising and eliminating items were applied to the results from Pretest One. Items that showed very little variability of range of opinion were eliminated, because they contribute little information about possible differences between people. Items whose patterns of associations with other items indicated that students interpreted them in ways other than we had intended, or interpreted them inconsistently from one student to the next, were also eliminated or rewritten. For example, if an item that was intended to present an opposite view from another item (and thus was expected to be negatively correlated with it) was actually positively associated with

its intended opposite, both items were reexamined for possible conceptual muddiness, difficulty of vocabulary, and revision or elimination from the item pool. As a result of these analyses, the number of items was reduced from 136 to 100.

Another outcome of Pretest One was evidence suggesting that the seventh and eighth grade respondents hold economic attitudes and values that might be described as in a state of nascent crystallization, rather than in a fully developed form. Although the questionnaire was written to be balanced between roughly opposing ideas, there was a marked tendency to agree more often than to disagree with statements. In addition, although a majority of students was willing to express some definite opinion--whether agreeing or disagreeing--in response to all items, some questions nevertheless had a high rate of "Don't know" responses (see Table 2). In most of these high "Don't know" instances, the items were relatively easy to understand, that is, they did not deal with complex abstractions or require advanced economic knowledge. In addition, younger students were more likely to agree with contradictory items, or rather, fail to perceive their contradictory content. Lastly, the significant factors or broader categories that emerged from factor analyses were sometimes less discrete than one would expect from a fully crystallized set of economic values.

On the basis of these findings, the plan for the second pretest was expanded to include older junior high school students and students with some economic training, in order to explore systematically the relationships between economic attitudes and increased cognitive maturity (i.e., economic training).

4.3. Pretest Two

The second pretest again encompassed a sample of approximately 200 students, and again covered diverse school populations. In particular, the grade-and-age range of the sample was extended by including 9th graders. Classrooms which had had the benefit of economics instruction were included as well (see Table 1).

Data from the second pretest were analyzed independently, and then in combination with Pretest One results to provide a larger pool of responses for analyzing patterns of associations among items. The tendency to agree, the

proportion and specific instances of "Don't Know," and the question by question means from Pretest Two respondents were markedly similar to those from the Pretest One group. Factor analysis was employed, primarily as a tool for refinement of the item pool, although it also gave a preliminary glimpse of the more complete picture of attitudes and their structure which would emerge after the Pilot. The saliency of a fairness or justice factor, a domain of considerations which had not been an a priori category for item generation, was a striking outcome of the factor analysis. Scales were drawn from the factors, and analyzed for variance by sex, race, grade, age and school. While significant differences by sex did not appear, other differing characteristics did seem to be significant. These differences argued for finding out more about the socioeconomic background, the extent of economic knowledge, and the economic experience of respondents; and for pursuing the question of age and knowledge differences in greater depth, by studying separately a group of older respondents. The analysis of Pretest Two data also served as the basis for further refinement of the instrument. The results of Pretest Two led to the elimination of another 29 items, thus a core of 71 items was used in the Pilot Study.

5. THE PILOT STUDY: THE EVI SCALES AND THEIR RELIABILITIES

The final empirical stage of the EVI development effort involved 452 junior high school students in a pilot study. The purpose of this stage was threefold: to provide a larger pool of responses for use in analyses to derive the multi-item scales and their reliabilities; to provide validational evidence on the performance of the EVI; and to provide the elements of a miniature "walk through" of the later experimental study of Our Economy's impact on values, so that procedures could be planned for and made smooth in the later study (a pilot study is by definition a preliminary, small-scale walk through of all stages of a larger study). The full design of the pilot study is described below in the section on validity. (Section 6).

5.1. The EVI Scales and Their Reliabilities

Responses of the pilot study students were combined with the responses obtained in the two pretest samples for a factor analysis of the remaining 71 items that comprised the pilot study test instrument. Thus, data from 850 junior high school students were analyzed, and found to yield eight distinct factors or content areas, covering a broad spectrum of economic issues. The items that were only weakly associated with a factor or not associated at all, were dropped.

Reliability analysis of the eight scales indicated that the reliability criterion of an alpha value of a minimum .50 had been obtained for each scale and thus a final suitable form of the Economics Values Inventory had been achieved. The final, 44-item version of the EVI is presented in Appendix 1. It is followed, in Appendix 2, with a version of it in a form suitable for classroom administration.

5.1.1. The Scales

Eight distinct scales make up the EVI. The first, which we call "The Free Enterprise System" scale, is shown in Figure 1. Individual items assert the need for hard choices in an economy of limited resources, the

SCALE 1. THE FREE ENTERPRISE SYSTEM (Support for free enterprise system)

1. Resources are always limited, and we must make hard choices about the best way to use them.
2. Profits are essential to our country's economic health.
3. Our society owes much to the contributions of business.
4. If workers want higher wages, they must work harder and produce more.
5. People who blame other people or society for their problems are just copping out.
6. My freedom to choose my own occupation is very important to me.
7. It's the duty of people to do their jobs the best they can.
8. Competition between businesses makes for the lowest prices.
9. A company deserves its profits when they come as the result of doing the best job for less money.
10. If you have a valuable skill, you'll get ahead in our society.
11. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone.
12. Our economy needs more people who are willing to save for the future.

Figure 1: Scale One: The Free Enterprise System

importance of saving, the valuable contributions of business to our society, the importance of competition for keeping prices low, the importance of freedom of occupational choice, the responsibilities of all people in the economy to do their jobs the best they can, and other topics. The scale is highly reliable, with an alpha of .7. Of all the scales comprising the EVI, the Free Enterprise System scale comes closest to capturing in a single scale attitudes toward the key issues covered in Our Economy.

The second scale is simply termed "Business," and the five items that make up the Business scale have in common an expression of almost unquestioning trust or faith in businesses as benevolent institutions (see Figure 2). The alpha for this scale is .5. We would like to see items added to this scale in future use to bolster its reliability.

SCALE 2. BUSINESS (Trust in business)

12. Most businesses won't sell products they think are unsafe.
14. Government should listen more to what the business community has to say.
15. Businesses could provide more jobs, goods, and services if they didn't have to pay so much in taxes.
16. Advertising helps consumers to make intelligent choices.
17. Most people like their jobs.

Figure 2: Scale Two: Business

The third scale measures a psychological orientation more than it measures some substantive area of attitudes and values. Labelled "Personal Economic Efficacy," Scale Three indicates the extent to which students feel alienated from the economy--personally powerless in the face of our economic system. The reliability (alpha value) of the scale is .7.

SCALE 3. PSYCHOLOGICAL: PERSONAL ECONOMIC EFFICACY (Alienation and powerlessness)

18. It's no use worrying about the economy; I can't do anything about it anyway.
19. Getting ahead is mostly a matter of luck.
20. It's foolish to do more than you have to in a job.
21. Having the freedom to start my own business really means having the freedom to take advantage of others.
22. Being in business means taking unfair advantage of others.
23. Profit is a sign that someone is being taken advantage of.
24. The way our economic system is set up, nobody has a chance to get ahead any more.

Figure 3: Scale Three: Personal Economic Efficacy

The next two scales deal with views of the appropriate role for the government in two areas: maintaining social welfare (Scale Four) and setting prices (Scale Five). The items in the "Government Role in Social Welfare" scale express the view that the government is responsible for the well-being

of the least-well-off in society. The reliability (alpha) of this scale is .6. The "Government Role in Price Setting" scale argues against any government involvement in setting prices. The alpha value for this scale is a modest .5, and we would like to see more items developed to augment the scale (currently comprised of only two items; see Figure 4), and to clarify its content. For example, this scale might be part of a broader construct concerning the appropriateness of any action by the government in the free-market economy. Additional items written to reflect such a construct could be added to the EVI, to see whether they factor together with those currently in Scale Five.

SCALE 4. GOVERNMENT ROLE IN SOCIAL WELFARE (Government is responsible)	
25.	It is the responsibility of the government to take care of people who can't take care of themselves.
26.	The poor and the ill have a right to help from the government.
*27.	A person who cannot find a job has only himself to blame.
28.	It should be the duty of government to be sure that everyone has a secure job and a decent standard of living.
29.	The unemployed shouldn't blame themselves for their situation: it's the fault of the economic system.
*30.	Taking care of the poor and the sick is the job of families and churches, not the job of the government.
SCALE 5. GOVERNMENT ROLE IN SETTING PRICES (Against government role)	
*31.	Companies should only be allowed to charge a government-controlled price for their products
32.	It's not the business of the government to control prices.

Figure 4: Scales Four and Five: Government Role in Social Welfare and Setting Prices

*For all scales, asterisk indicates reverse scoring item.

Items in the sixth scale, "Unions," express negative views toward powerful unions. Its alpha value of .5 would also benefit from the addition of more labor union items in future applications.

SCALE 6. UNIONS (Against powerful unions)

33. Unions are too powerful.

*34. We'd all be better off if labor unions were stronger.

35. Employers should have the right to hire non-union workers if they want to.

Figure 5: Scale Six: Unions

Scale Seven, "Treatment of Workers," consists of four items that express the view that most employees and workers in our country receive fair treatment. It has a robust reliability of .7.

SCALE 7. TREATMENT OF WORKERS (Workers' treatment is fair)

36. The average worker today is getting his or her fair share.

*37. The average worker is getting less than his or her fair share.

*38. Most companies don't give employees a fair share of what the company earns.

39. Most companies give employees a fair share of what the company earns.

Figure 6: Scale Seven: Treatment of Workers

The final scale, "The Economic Status Quo," is made up of five items that have in common the view that resources and opportunities are unfairly distributed in our present economic system, and that the status quo should be changed (alpha = .6).

SCALE 8. THE ECONOMIC STATUS QUO (Against the status quo)

40. America's wealth is far too unequally shared.

41. The situation of the average person is getting worse, not better.

42. There are few real opportunities for the average person to start a business in America today.

43. We need a way to make incomes more equal in this country.

44. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

Figure 7: Scale Eight: The Economic Status Quo

In sum, then, the EVI consists of eight scales that cover a wide range of topics in economics, including those in which the sponsors explicitly seek to assess changes of opinion brought about by Our Economy: perception of one's role in the economy, and views about business, government activity in the economy, and the free enterprise system. In addition, a concern with fairness, in particular, characterizes many of the items in the EVI, even on different scales. Proportionately many more items in the 44-item EVI than in the original 136-item pool touch on this topic, indicating that fairness--whether in business activity, government activity, in the distribution of resources, etc.--is a particularly salient issue among these young people.

While some of these scales appear to deal with similar themes, we know that the students perceived the topics covered by the scales to be essentially distinct. We know this by definition, because they factored as separate clusters of items. It is certainly possible, however, that a person with a well-developed, well-integrated model or ideology of the economy could view all the items as elements of a single scale, each item in effect allowing expression of some facet of a broad construct, "economic ideology." The eight scales presented here reflect distinctions among topics that are meaningful to a very diverse sample of 11 to 13 year olds in the U.S. today. We are confident that they are the best configuration of the items for use with this age group.

5.1.2. The Content of Students' Values and Attitudes

Table 3 shows the average scale scores for pilot study students (first column). With response choices ranging from 7, which shows strong agreement, to 1, strong disagreement with the scale values, it shows junior high school youth to feel quite strong support for the free enterprise system (5.7), slight agreement with statements expressing trust in business (4.7), firm disagreement with the scale expressing feelings of economic powerlessness / alienation (2.8), mild support for a strong role for government in maintaining social welfare (4.9), neutral feelings about the government controlling prices, (4.0), slight agreement that powerful unions are a problem (4.6), disagreement that workers receive fair treatment in our society (3.1), and slight agreement that there is need for changes toward greater equality in our economic system status quo (4.8).

Once reliable multi-item measures of individual topics were attained, it remained for analyses to be conducted exploring the validity of the scales --the extent to which they are actually measuring what it is we intend that they be measuring.

6. THE PILOT STUDY: THE VALIDITY OF THE EVI

The purpose of the pilot study was also to gather evidence of the validity of the EVI, in the course of carrying out a quasi-experimental evaluation of Our Economy's values impacts. The pilot study allowed examination of the relationships between EVI scales scores and a host of theoretically related and unrelated variables, including: experience with Our Economy, amount of economic training, extent of economic knowledge and understanding, job responsibilities, school community's economic circumstances, family economic circumstances (socioeconomic status), race, sex, and political party affiliation.

6.1. Design of the Pilot Study

Eight schools that had classes of students who had studied Our Economy and same-grade classes that had not used the text participated in the pilot. Four-hundred-fifty-two students from 18 classrooms responded to a 71-item interim version of the EVI, so that comparisons could be made of the attitudes of students essentially similar except for their experience with the text.

6.2. Characteristics of Pilot Participants

The pilot, like the pretests, encompassed a richly diverse student population. Eight schools took part. Pilot school populations ranged from working class to upper middle in socioeconomic status and included racially mixed and homogeneous (Black or White) classrooms. Grades 7, 8 and 9 participated, and the diversity of settings included a solidly middle class Black school in the South, a West Coast school with a large Asian population, and schools which represented opposite or mixed political party affiliations. Table 4 portrays the characteristics of Pilot school populations in detail, by grade, average age, race, parental occupation and education, and socioeconomic status.

Table 5 describes how respondents in each school obtain money through jobs, allowances, gifts, etc., and what they do with any money that is theirs to spend as they wish (save, spend on necessities, spend on luxuries, etc.). It indicates that one-half to over two-thirds of students in the pilot study classes receive an allowance. Many of the students receive money (other than allowance) from jobs, ranging from a low of about 27 percent of the students

from one Oklahoma school to a high of almost 68 percent in another Oklahoma school. Many students reported receiving money as "gifts," usually going on to explain that this means money from parents on an "as requested" basis.

Table 5 also shows that very few students spend their own resources on family necessities (5.7) percent) and contributions to church, synagogue or charities (14.4 percent). Over half (52.7 percent) put some portion of their money into savings. For the most part, students spend their discretionary resources on themselves, for records, movies, "fun," clothes, dates and so on (73.9 percent). Table 5 makes clear, however, that there is considerable variation across schools in each of these spending categories.

6.3. Values and Use of Our Econc

The analysis depicted in Table 6 reveals that there are statistically significant values differences between text users and non-users on three scales: those showing their support for the free enterprise system (Scale 1), their trust in business (Scale 2), and their feelings about unions (Scale 6). Text users were more supportive of the free enterprise system, expressed greater trust in business, but were somewhat less likely to oppose powerful labor unions. Although the differences are not statistically significant, text users were also more likely than non-users to disavow feelings of personal powerlessness and alienation, to support the economic system status quo, and to believe that workers receive fair treatment from their employers.

6.3.1. Economic Instruction

Responses to questions about economic instruction indicated that many students who had not used Our Economy had nevertheless received some form of economics instruction. It is possible that the effects of an alternative form of economics training could blur the distinctions in values of text users and non-users. Thus, a series of analyses was conducted to detect the impact on values of any economic instruction vs. none at all, and of various amounts or periods of instruction.

Table 7 shows highly reliable differences in values between students with and without any economic training, on the first three scales, and all differences are in the expected direction. Students who have had economic instruction are more supportive of the American free enterprise system, express greater trust in business, and feel greater personal efficacy in dealing with the economy (Scale 3).

The findings in Table 8, which shows values scores of youth who have had varying amounts of economic training (none, 1-4 weeks, 5-10 weeks, etc.) reveal the same pattern of results: the more economic training, the more positive the views of the free enterprise system, the more support for our economic system status quo (Scale 8), and the greater the feelings of personal efficacy (Scale 3).

6.3.2. Values and Economic Knowledge

In a sense, the variables examined to this point--use of the text, any economic instruction, length of instruction--have been substitutes for the variable that is implicitly assumed to be the actual agent of changes in values, namely, economic knowledge. The effects of greater understanding of the economy and how it works is the true topic of interest to the sponsors of this research. Our Economy is known from previous research to be effective in increasing users' economic knowledge, and its effectiveness relative to other texts may be studied in the future. But the amount of economic knowledge gained from use of the text may vary from classroom to classroom, as teachers' styles and applications of the text vary, and from student to student as well. Therefore, in the pilot study we included questions that allow us to independently classify respondents according to their extent of economic understanding. The questions were from the Joint Council on Economic Education's Junior High School Economics Test, and are reproduced as they appeared on the questionnaire in Figure 8. Table 9 presents the differences in values of students with various amounts of economic knowledge.

Table 9 shows "extent of economic knowledge" to be the strongest predictor seen so far of students' economics values differences. On five of the eight scales, students with greater economic understanding have values that are reliably different from students with less understanding:

- Students with greater economic knowledge (more test-items answered correctly) agree more strongly with the items that make up the Free Enterprise System scale (Scale 1);
- As level of economic knowledge increases there is a steady, statistically significant drop in students' feelings of powerlessness and alienation from the economic system (Scale 3);
- Students with more economic understanding also more strongly oppose government price-setting activity (Scale 5), more strongly oppose powerful labor unions (Scale 6), and are significantly less likely to agree with statements that attack the economic system status quo (Scale 8).

Figure 8: Economic Facts Questions From Test by the Joint Council on Economic Education

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ECONOMIC FACT QUESTIONS

Up to this point you have been telling us your opinions about economic issues. There have been no right or wrong answers, just your personal point of view.

For the questions below, however, we'd like you to "switch gears." These statements do have right and wrong answers. They are not a test. We just want to find out what kind of understanding students in your grade have about economics.

So please, read each item and its answer categories carefully, and do your best to pick the one best answer. PUT AN "X" NEXT TO THE BEST ANSWER.

1. Those who believe that people should be taxed according to their ability to pay would be most likely to favor:

   _____1. An excise tax. _____3. A progressive income tax.

   _____2. A general sales tax. _____4. A residential property tax.

2. As more sewage processing plants are built and put into operation, more fertilizer may be produced as a by-product. If that happens, fertilizer will be:

   _____1. Wanted more. _____3. Less expensive.

   _____2. More expensive. _____4. Wanted less.

3. When Communist China builds a canal entirely with hand labor, we can probably assume that:

   _____1. Capital is relatively scarce there.

   _____2. Canals built by hand are better.

   _____3. Labor is relatively scarce there.

   _____4. They have an abundance of natural resources.

4. Inflation can be defined as a period of:

   _____1. Increasing unemployment. _____3. Rising prices.

   _____2. Shortage of money. _____4. Failing banks.

5. Most of the money that American businesses receive by selling their products or services is paid as:

   _____1. Profits to the owners. _____3. Rent to property owners.

   _____2. Salaries to employees. _____4. Interest on debts.

6. What is the reward of those who take the investment risk in a business?

   _____1. Salaries. _____3. Profits.

   _____2. Wages. _____4. Rents.

7. In a market economy such as the U.S., most goods are produced by:

   _____1. Consumer cooperatives _____3. Government industries

   _____2. Profit-making businesses _____4. Nonprofit corporations

These findings are all consistent with those we would expect if greater economic understanding (such as that gained through study with Our Economy) positively influences and changes the values of young people in the direction of those values supported by the Foundation for Teaching Economics. Alternatively, the causal order may be just the opposite: students with more pro-business, pro-free market values may also seek out more information about the economy, and thus have greater economic understanding. Only an experiment can clarify the true causal relationship. In either case, the findings provide strong evidence for the validity of the Economics Values Inventory (the litmus test for which is that scores on the EVI relate in predictable, theoretically meaningful ways with other variables), because EVI scale scores vary in ways that suggest the scales are sensitive to actual differences in the attitudes and values being measured.

6.3.3. Other Validity Indicators

We examined variations in values in five other subgroupings of students. First, we explored whether differences in economic responsibilities or experiences were related to values. The indicator of economic experience we used was whether or not the student had a job or regular chores at home. Table 10 reveals that in fact such experience does distinguish students on four of the eight scales. Junior high school youth who report having a job or regular duties at home express more support for the free enterprise system, less economic powerlessness and alienation, less support for a government role in maintaining social welfare, and less distress with the economic status quo, than students with no such regular economic responsibilities. These findings are quite in accord with expectations that a greater role in the economy would lead to greater support for text values.

The relationship between socioeconomic status and economic values was examined next, and findings are described in Table 11. We had no firm a priori hypotheses about this relationship, but speculated that while support for the ideal free market system should cut across all classes (Scale 1), satisfaction with the system as it actually functions would likely be less among the less well off. Table 11 shows this to be the case. Scale 1 scores do not differ significantly across socioeconomic groups, but the lower the socioeconomic status, the greater the economic alienation, the more support for government action in maintaining social welfare, the less antipathy toward

powerful unions, and the less fair the current economic situation is perceived to be (Scales 7 and 8). Figure 9 presents one line of Table 11 in graphic terms: it shows the striking relationship between socioeconomic status and support for the economic status quo (Scale 8).

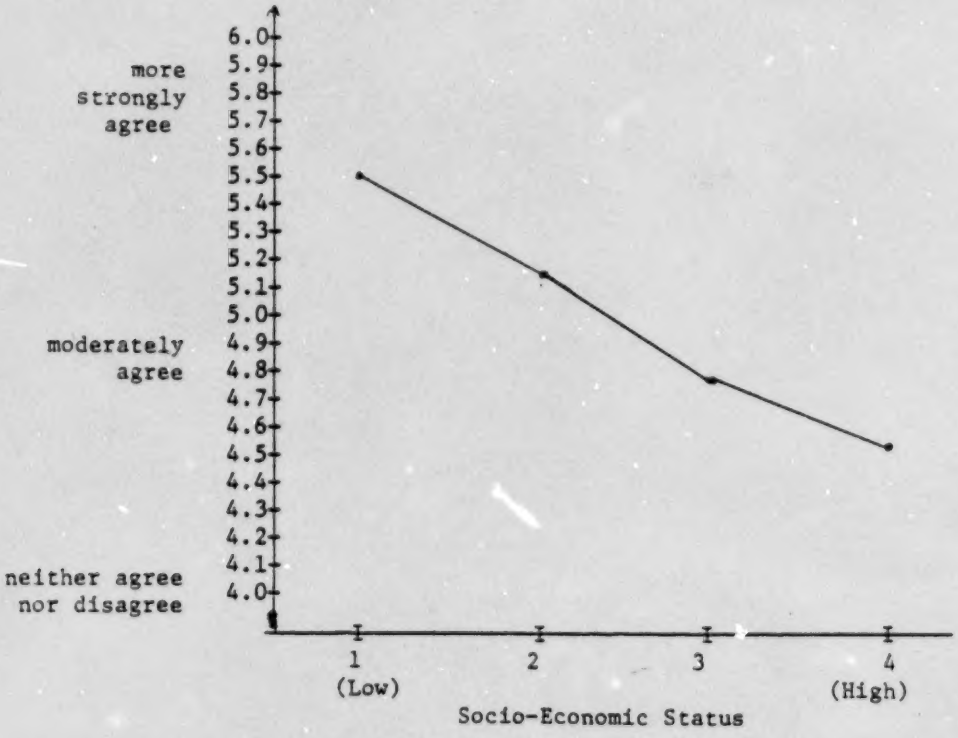

Figure 9: Belief that the Economic Status Quo Is Unfair and Should Be Changed (Scale 8), by Socioeconomic Status

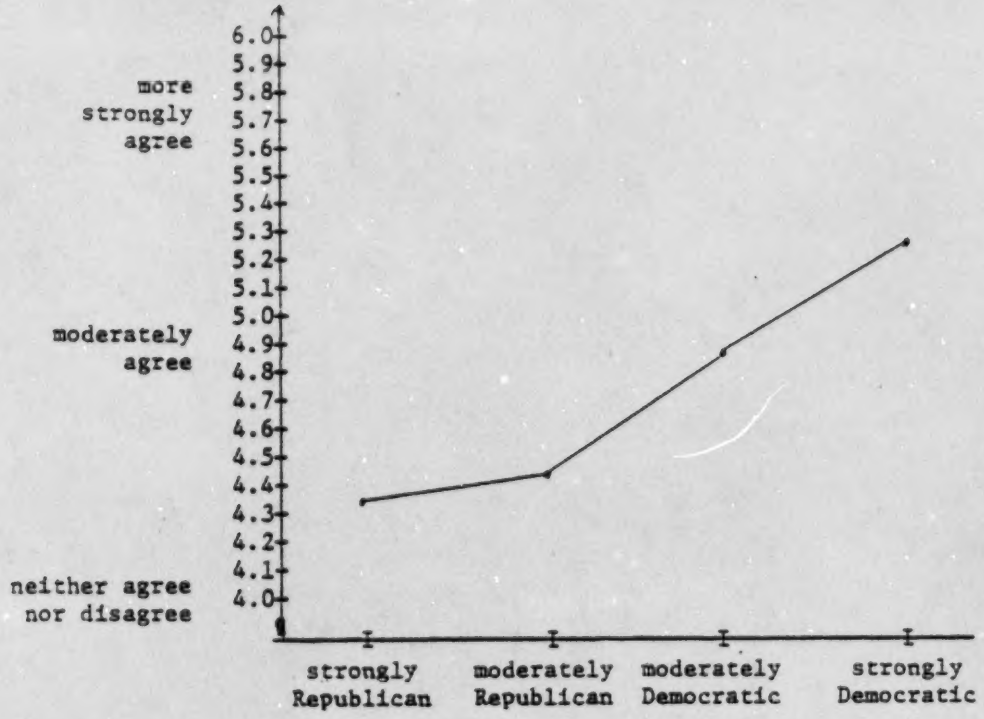

Figure 10: Belief that the Economic Status Quo Is Unfair and Should Be Changed (Scale 8), by Political Party Identification

Pilot study respondents were asked to describe their political party identification, if any. Table 12 describes the relationships found between economic values and political party identification. Only on Scale 8, which indicates a belief that the economic status quo is unfair and should be changed, are there consistent differences by party identification. As Figure 10 makes clear, the more strongly Democratic the identification, the greater the unhappiness with the status quo. If the status quo is identified with the current Republican administration, this relationship is very plausible and provides still more supportive evidence of the validity of the EVI.

Tables 13 and 14 present findings of the final two analyses. They describe variations in scale scores by sex (Table 13) and race (Table 14) of the students. There are few strong differences between the sexes on the scales. There are a number of statistically significant racial differences, but the small numbers of Hispanics and "Others" and the inconsistencies in Black-White differences, make interpretation of these differences difficult.

7. SUMMARY

The evidence reported here argues well for placing a high degree of confidence in the Economics Values Inventory as a measure sensitive to changes in the economic attitudes of junior high school youth. The extensive testing procedures with large numbers and diverse groups of students, the statistical reliabilities of the scales, and the construct validity of the items, all combine to support the measure. The final section of this preliminary report briefly describes additional research undertaken to explore the use of the measure with older and more economically experienced respondents.

8. A POINT OF COMPARISON: SENIOR HIGH SCHOOL STUDENTS

To provide both a point of contrast and data for further exploring changes in economic values associated with increases in age and experience with the economy, 207 high school seniors participating in the Junior Achievement "Applied Economics" course sequence responded to the Pilot questionnaire.*

8.1. The Sample

Nine classes from four schools--three public, one parochial--responded to the questionnaire during a regular supervised class period. Students were from predominantly skilled blue-collar and white-collar households. The extremes of the economic continuum--poverty and great affluence--were not represented. All the schools were in urban Chicago, of mostly White or mixed racial composition.

Responses to questions about their experiences with the economy reveal that most of these youth are actively involved in the economy as job-holders, many working half- to full-time while attending school full-time. They tend to spend the money they earn on themselves, more for amusements than for necessities.

8.2. The Structure of Senior High Students' Values

Factor analysis of these older students' responses to the pilot study's larger pool of 71 items reveals most of the same sub-scale themes that were found in the younger students' responses, but with some finer distinctions drawn. Appendix 3 describes the Senior High School students' scales and their elements.

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*Applied Economics has four components: 1. traditional classroom instruction with a Junior Achievement economics text and regular tests; 2. a production and marketing project; 3. weekly guest speaker from the business community; and, 4. computer simulation of economic activity. The course lasts one semester.

We present the Senior High School scales here as an alternative form of the EVI for use with older students. Its value over the primary EVI for use with older students only is that it provides more detailed information about values. Specifically, rather than a single "Free Enterprise System" scale, the older youth perceived four distinct themes embedded in the same items: Patriotic pro-business, pro-innovation, "realistic" support for modern business, and what we termed the "there's no free lunch" factor. In addition, they perceived three additional items as related to the EVI's Trust in Business scale, providing a somewhat more reliable scale on this topic.

It should be emphasized that the alternative measure is appropriate for use only with older students, not with youth of the ages that typically use Our Economy. It includes items that were not as easily understood by the younger students, and it groups items in scales different from those that the younger students perceived. The EVI, however, is appropriate for use with both younger and older students, as described below.

8.3. Evidence of the Performance of the EVI With Older Students

8.3.1. Content of Older Students' Values Relative to Younger Sample

Comparison of younger and older students's scale scores (shown in Table 3) reveals that older, more economically experienced students are more supportive of the free enterprise system, have less trust in business, and feel less alienated and powerless than younger students. In general, their values, as a group, are very similar to those of the younger sample on all of the scales. (All analyses reported in this section use the EVI, not the senior-high-only scales.)

8.3.2. Values of Subgroups

Analyses revealed statistically significant differences in economic values for various subgroupings of the older students. Table 15, for example, shows that the EVI is very sensitive to difference of opinion among students with different amounts of economic knowledge, as indicated by respondents' answers to factual questions about the economy. Thus, students with greater economic knowledge are significantly more likely to express support for the free enterprise system, to be less trusting of business, to feel less alienated and powerless, and to agree more with items that express dissatisfaction with the economic status quo.

Table 16 indicates statistically reliable differences between racial subgroupings. For example, Blacks and Whites have reliably different scores on the third scale, which measures feelings of powerlessness and alienation. Students of both races disagree with the scale's sentiments, but Blacks less so than Whites (3.08 vs. 2.42, smaller numbers showing greater disagreement) (Table 16). There were no sex differences in values on seven of eight scales. Women expressed a slight but reliable difference in their trust in business, however, being less trusting than men (scale scores 5.61 and 5.76, respectively, higher numbers showing greater trust).

8.4. Summary

Older youth perceived the same themes within the pool of pilot test items that the junior high school youth saw, but drew some sharper distinctions among concepts, and were more certain of their views, this certainty probably a result of their greater experience with the economy. They were more supportive of business and innovation, as reflected in the first scale, but were also less trusting of business.*

The findings from the older youth provide a useful point of comparison to the junior high school youth and suggest the EVI is suitable for use with older respondents. This suggestion must be considered tentative, however; this was a fairly homogeneous group of senior high students, and further research with different types of adult samples is urged.

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*The fusing of these two strands may appear paradoxical. However, a like phenomenon was observed in the younger sample. The most obvious interpretation would be that skepticism rather then trust predominates in the more cognitively mature, engendering an attitude akin to caveat emptor which is in no way incompatible with holding entrepeneurial values; while blind trust is more a function of cognitive immaturity and may even be a marker of lesser integration into the economic system.

9. CONCLUSIONS AND RECOMMENDATIONS

The goal of this stage of the evaluation of the economic values and attitudes impacts of Our Economy on its intended audience was the development of the Economics Values Inventory, in the form of multiple, thematically relevant, multi-item scales. We have seen in preceding sections how the manner of the EVI's development, and the data which emerged in the course of its development, combine to give sturdy support to the measure. The testing procedures which were employed, the number and diversity of the respondents, the statistical reliability of the scales, and the evidence for their construct validity, justify a high degree of confidence in the EVI as an instrument effective in detecting group changes in economic values and attitudes among junior high school students.

It should again be stressed that instrument development is, in principle, an ever-continuing process, and that in practice, the opportunities for further refinement of the EVI which will be offered by its initial applications are indeed considerable. Further developmental work, including generation of additional items for some scales, should continue, and even more robust reliabilities should be pursued.

The caveat that the scales are useful at the group level, rather than that of predicting individual students' responses and values, is worth entering again. Granting this group focus, the sensitivity of the scales should once more be noted, not just as an indicator of how well they pick up attitudinal and valuational change, but also as a consideration informing the design of future evaluations of the impact of the text. Cases of highly

local effects which were registered by the instrument exemplify this point.* They confirm the desirability of studying large numbers of classrooms in diverse settings, so that any purely local effects can cancel each other out.

The evidence accumulated thus far is consistent with the interpretation that Our Economy has the sorts of values and attitudes impacts which are desired by the sponsors of the text. Measurement of the degree and direction of value and attitude change in text users can now be pursued with the valid and reliable instrument which has been described in this report.

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*Two such instances may be cited. First, in comparisons of scale scores for two racially same (Black) schools of similar socioeconomic status, scale means showed great similarity except on the Economic Alienation and Powerlessness scale, on which they differed markedly. The school which showed dramatically less economic alienation and sense of powerlessness was located in Chicago, and it is not unlikely that this difference is to be explained with reference to specific local conditions such as euphoria over the recent election of a Black mayor, the presence of a locally based Black presidential candidate, and a massive and successful Black voter registration drive. Indeed, the example of Mayor Washington is sometimes given specific pedagogic point in Chicago schools, as a lesson in how any determined individual, regardless of race, can succeed (Banas, 1984). A second instance of sensitivity to local effects was found when the means of a school in an extremely high unemployment zone were contrasted to those of other schools. In general, respondents distinguished between different kinds of employment items, choosing between alternative approaches. Respondents in the high unemployment area, however, expressed extremely favorable attitudes toward any item addressing employment problems, affirming a range of items which would have been regarded as mutually exclusive or contradictory approaches by other respondents.

TABLE 1

Characteristics of Schools in the Pretests

SCHOOL	Race	Income	Location	Type	Economics Instruction	Grades	Number
1. Chicago Public	Black	Poor-lower middle	Urban, Midwest	Public (Magnet)	No	7, 8	65
2. Chicago Parochial	White	Lower middle to middle	Urban, Midwest	Parochial	No	7, 8	57
3. Chicago Montessori	Black, White	Upper middle	Urban, Midwest	Private	No	7, 8	15
4. Private Suburban (Winnetka)	White	Upper middle	Suburban, Midwest	Private	No	7, 8	55
5. Public Suburban (Evanston)	White, Black, Oriental	Lower middle to upper middle	Suburban, Midwest	Public	Grade 7--no Grade 8--yes	7, 8	84
6. Pennsylvania	Black	Very poor	Urban, East	Public	Yes (O.E.)	9	58
7. Kentucky 1	White majority	Lower middle to middle	Suburban, Border/South	Public	Yes (O.E.)	7	29
8. Kentucky 2	White	Lower middle to middle	Rural Border/South	Public	Yes	7	35

Total = 398

Pretest Summary by Grade, Race and Sex:

398 respondents:	Grade 7:	184	Black:	142	Male:	172
	Grade 8:	156	White:	222	Female:	226
	Grade 9:	58	Hispanic:	3		
			Other:	31		

TABLE 2

Percentage Frequencies of "Don't Know" Responses:
Junior High Versus Senior High Students*

	Jr. High	Sr. High
There are practically no services which government can provide which businesses couldn't provide better.	29.6	26.1
Government rules that control the activities of businesses usually get in the way of their doing a good job.	29.1	15.5
Unions are too powerful.	26.5	12.6
Profits are essential to our country's economic health.	24.3	4.8
Our society owes much to the contributions of business.	22.0	8.7
What people like me do and think has an important impact on the economy.	20.3	7.2
America owes its great wealth to its superior economic system.	17.9	12.6

*The seven highest "don't know" items in percentage frequency of response, from those questions which were retained from Pretest 1 through Pilot.

TABLE 3

Average Scale Scores for Younger vs. Older Students

VALUES SCALES	Junior High School Students	Senior High School Students
1. Support for Free Enterprise System	5.4	5.7
2. Trust in Business	4.7	4.4
3. Economic Alienation and Powerlessness	2.8	2.5
4. Government is Responsible for Social Welfare	4.9	4.8
5. Against Government Role in Price Setting	4.0	4.2
6. Against Powerful Unions	4.6	4.5
7. Workers Receive Fair Treatment	3.1	3.0
8. Against Economic Status Quo	4.8	4.6

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 4

Characteristics of Pilot Study Students, by School

School	Economics Knowledge	Grade	$\bar{X}$ Age	Race	Mother's Profession	Mother's Education	Father's Profession	Father's Education	SES
					(Rank)	(Rank)	(Rank)	(Rank)	(Rank)
San Francisco	2.59	8	13	Other (mixed inc. Asian)	3.5 (3)	3.41 (4)	3.82 (5)	3.52 (3)	2.80 (6)
Mississippi	3.51	9	14	Black	3.6 (2)	3.64 (1)	3.80 (6)	3.39 (5)	2.89 (4)
Kentucky 1	2.52	7	12	White	2.2 (5)	2.00 (7)	3.21 (8)	2.13 (8)	1.85 (8)
Kentucky 2	3.40	7	12	White	3.1 (4)	2.42 (6)	3.46 (7)	2.66 (7)	2.28 (7)
Oklahoma 2	4.72	8	13.5	White	3.5 (3)	3.51 (3)	4.65 (2)	3.84 (1)	3.29 (1)
Houston	4.61	9, 10	14	White, Black, Hispanic	3.5 (3)	2.84 (5)	4.13 (4)	3.36 (6)	2.87 (5)
Oklahoma 1	3.86	9	14.5	White	3.9 (1)	3.54 (2)	4.69 (1)	3.42 (4)	3.14 (3)
Phoenix	3.90	8	13	White	3.9 (1)	3.51 (3)	4.55 (3)	3.74 (2)	3.26 (2)

Pilot Respondents by Grade, Race and Sex:

Grade:	Grade 7: 56	Race:	Black: 88	Sex:	Male: 208	Total = 452
	Grade 8: 282		White: 287		Female: 217	
	Grade 9: 91		Hispanic: 12		no information: 27	
	Grade 10: 6		Other: 41			
no information	17	no information	24			

TABLE 5

Percent of Pilot Study Students Reporting Various Sources and Uses of Money, by School

	INCOME SOURCE			HOW MONEY IS USED				
	Allowance	Job	Gifts	Personal Necessities	Amusements	Family Needs	Church	Savings
San Francisco	56.9%	52.0%	58.6 %	44.1%	53.4 %	6.9 %	12.1%	46.6 %
Mississippi	66.7	43.1	42.1	63.2	50.0	10.5	26.3	35.1
Kentucky 1	59.3	31.6	59.3	29.6	85.2	0.0	14.8	22.2
Kentucky 2	60.0	33.3	66.7	10.0	80.0	7.4	23.3	53.3
Oklahoma 2	69.5	26.7	59.3	37.3	88.1	6.7	11.9	67.8
Houston	69.5	61.0	57.6	18.6	74.6	5.1	16.9	55.9
Oklahoma 1	50.0	64.4	38.6	54.5	70.5	6.8	20.5	43.2
Phoenix	64.4	47.7	60.2	20.3	84.7	4.2	5.1	65.3
TOTAL	63.1	52.0	55.5%	34.1%	73.9%	5.7%	14.4%	52.7%

TABLE 6

Junior High School Students: Scale Scores of Those Who Have and Have Not Used the Text, Our Economy

VALUES SCALES	Have Used Our Economy: Yes	Have Used Our Economy: No	p level
1. Support for Free Enterprise System	5.53	5.39	.016
2. Trust in Business	4.79	4.57	.008
3. Economic Alienation and Powerlessness	2.77	2.89	n.s.
4. Government is Responsible for Social Welfare	4.86	4.89	n.s.
5. Against Government Role in Price Setting	3.98	3.98	n.s.
6. Against Powerful Unions	4.46	4.72	.020
7. Workers Receive Fair Treatment	3.20	3.09	n.s.
8. Against Economic Status Quo	4.76	4.89	n.s.

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

NOTE: "p level" is the probability that differences between subgroupings are due to chance. By convention, probabilities are reported as "statistically significant" if they are equal to or less than .050, i.e., if the likelihood of obtaining the observed differences by chance is equal to or less than one in twenty.

TABLE 7

Junior High School Students: Scale Scores of Those Who Have Had Economics Instructions and Those Who Have Had No Economics Instructions

VALUES SCALES	Economics Instructions: Yes	Economics Instructions: No	p level
1. Support for Free Enterprise System	5.51	5.34	.003
2. Trust in Business	4.77	4.46	.000
3. Economic Alienation and Powerlessness	2.75	3.00	.003
4. Government is Responsible for Social Welfare	4.94	4.80	n.s.
5. Against Government Role in Price Setting	4.02	3.96	n.s.
6. Against Powerful Unions	4.55	4.74	n.s.
7. Workers Receive Fair Treatment	3.16	3.08	n.s.
8. Against Economic Status Quo	4.80	4.90	n.s.

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 8

Junior High School Students: Scale Scores of Those Who Have Studied Economics for Various Lengths of Time

VALUES SCALES	Length of Period of Economic Study: No Such Study	1-4 Weeks	5-10 Weeks	11 Weeks to 1 semester	1 Year or More	p level
1. Support for Free Enterprise System	5.50	5.49	5.48	5.81	5.65	.003
2. Trust in Business	4.68	4.76	4.90	4.64	4.95	n.s.
3. Economic Alienation and Powerlessness	3.02	2.90	3.05	2.41	2.85	.002
4. Government is Responsible for Social Welfare	4.72	4.84	5.24	4.70	4.37	.018
5. Against Government Role in Price Setting	3.90	3.72	3.96	4.08	4.38	n.s.
6. Against Powerful Unions	5.01	4.40	4.63	4.70	4.67	n.s.
7. Workers Receive Fair Treatment	2.98	3.22	2.98	3.33	3.29	n.s.
8. Against Economic Status Quo	4.98	4.80	5.08	4.42	4.55	.014

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 9

Junior High School Students: Scale Scores of Youth with Different Levels of Economic Knowledge

VALUES SCALES	Extent of Economic Knowledge (Number of Items Correct Out of 7) 0 - 2	3 - 4	5 - 6	7	p level
1. Support for Free Enterprise System	5.23	5.52	5.88	5.82	.000
2. Trust in Business	4.93	4.75	4.65	4.32	n.s.
3. Economic Alienation and Powerlessness	3.37	2.95	2.41	2.06	.000
4. Government is Responsible for Social Welfare	4.91	4.90	4.72	4.50	n.s.
5. Against Government Role in Price Setting	3.54	3.63	4.36	4.03	.017
6. Against Powerful Unions	4.29	4.56	4.76	4.91	.009
7. Workers Receive Fair Treatment	3.18	3.09	3.13	3.64	n.s.
8. Against Economic Status Quo	4.98	5.04	4.49	4.05	.000

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 10

Junior High School Students: Scale Scores of Those Who Do and Do Not Have a Job or Regular Chores at Home

VALUES SCALES	Have a Job or Regular Chores at Home: Yes	No	p level
1. Support for Free Enterprise System	5.63	5.46	.021
2. Trust in Business	4.70	4.82	n.s.
3. Economic Alienation and Powerlessness	2.71	3.07	.003
4. Government is Responsible for Social Welfare	4.72	5.01	.010
5. Against Government Role in Price Setting	3.87	3.97	n.s.
6. Against Powerful Unions	4.67	4.61	n.s.
7. Workers Receive Fair Treatment	3.19	3.14	n.s.
8. Against Economic Status Quo	4.67	4.97	.021

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 11

Scale Scores of Junior High School Students of Different Socio-Economic Status*

VALUES SCALES	Socio-Economic Status (Lower) 1	2	3	(Higher) 4	p level
1. Support for Free Enterprise System	5.32	5.36	5.54	5.46	n.s.
2. Trust in Business	5.12	4.90	4.59	4.47	.000
3. Economic Alienation and Powerlessness	3.35	3.02	2.80	2.69	.001
4. Government is Responsible for Social Welfare	5.40	5.14	4.80	4.73	.000
5. Against Government Role in Price Setting	4.06	3.92	3.80	4.19	n.s.
6. Against Powerful Unions	4.45	4.34	4.66	4.69	.003
7. Workers Receive Fair Treatment	2.78	2.89	3.20	3.27	.013
8. Against Economic Status Quo	5.50	5.17	4.87	4.53	.000

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

* Socio-Economic Status (SES) is a composite variable defined by 4 variables: Mother's and Father's Education and Profession.

TABLE 12

Scale Scores of Junior High School Students with Different Political Party Identifications

VALUES SCALES	Strongly Republican	Slightly Republican	Slightly Democratic	Strongly Democratic	p level
1. Support for Free Enterprise System	5.76	5.60	5.45	5.51	n.s.
2. Trust in Business	4.88	4.32	4.60	5.06	.006
3. Economic Alienation and Powerlessness	2.59	2.74	2.90	2.88	n.s.
4. Government is Responsible for Social Welfare	4.57	4.62	4.75	5.09	n.s.
5. Against Government Role in Price Setting	4.06	3.87	3.60	4.17	n.s.
6. Against Powerful Unions	5.02	4.80	4.75	4.50	n.s.
7. Workers Receive Fair Treatment	3.33	3.70	3.18	2.96	n.s.
8. Against Economic Status Quo	4.33	4.46	4.84	5.22	.000

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 13

Scale Scores of Male and Female Junior High School Students

VALUES SCALES	Males	Females	p level
1. Support for Free Enterprise System	5.49	5.39	n.s.
2. Trust in Business	4.61	4.68	n.s.
3. Economic Alienation and Powerlessness	2.87	2.81	n.s.
4. Government is Responsible for Social Welfare	4.80	4.98	.026
5. Against Government Role in Price Setting	4.19	3.84	.009
6. Against Powerful Unions	4.73	4.52	n.s.
7. Workers Receive Fair Treatment	3.23	3.02	.049
8. Against Economic Status Quo	4.73	4.94	.020

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 14

Junior High School Students: Scale Scores of Those with Different Racial Backgrounds

VALUES SCALES	Hispanic	Black	White	Other	p level
1. Support for Free Enterprise System	5.29	5.29	5.53	5.38	.002
2. Trust in Business	4.51	4.90	4.53	4.76	.001
3. Economic Alienation and Powerlessness	3.28	3.12	2.70	2.80	.000
4. Government is Responsible for Social Welfare	4.85	5.07	4.82	4.89	n.s.
5. Against Government Role in Price Setting	2.73	4.03	4.06	3.69	n.s.
6. Against Powerful Unions	4.17	4.18	4.82	4.68	.000
7. Workers Receive Fair Treatment	2.67	2.89	3.20	3.34	n.s.
8. Against Economic Status Quo	4.76	5.26	4.70	4.59	.000

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 15

Senior High School Students: Scale Scores of Students with Different Levels of Economic Knowledge

	Economic Knowledge [Number of Items Correct Out of 7]				
	0 - 2	3 - 4	5 - 6	7	p level
1. Support for Free Enterprise System	5.12	5.67	5.77	5.85	:009
2. Trust in Business	4.98	4.55	4.37	3.96	.008
3. Economic Alienation and Powerlessness	3.92	2.58	2.43	2.20	.000
4. Government Responsibility for Social Welfare	4.95	4.79	4.77	4.46	n.s.
5. Against Government Role in Price Setting	3.42	3.99	4.32	4.65	n.s.
6. Against Powerful Unions	4.17	4.61	4.53	4.61	n.s.
7. Treatment of Workers is Unfair	4.83	5.26	4.88	4.67	n.s.
8. Against Economic Status Quo	5.10	5.01	4.50	4.27	.028

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 16

Senior High School Students: Scale Scores of Students of Different Racial Backgrounds

VALUES SCALES	Black	Hispanic	White	p level
1. Support for Free Enterprise System	5.56	5.62	5.74	n.s.
2. Trust in Business	5.15	4.33	4.28	.016
3. Economic Alienation and Powerlessness	3.08	2.36	2.43	.034
4. Government is Responsible for Social Welfare	5.20	5.24	4.59	.024
5. Against Government Role in Price Setting	3.61	3.59	4.42	.073
6. Against Powerful Unions	4.33	4.38	4.61	n.s.
7. Workers Receive Fair Treatment	2.34	2.82	3.22	n.s.
8. Against Economic Status Quo	5.12	4.93	4.51	n.s.

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

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APPENDICES

1. The Economics Values Inventory (EVI)

2. The EVI in a Form for Classroom Use

3. Senior High School Version of the EVI

4. Individual Test Item Means for Junior High School and Senior High School Respondents

APPENDIX 1:

THE ECONOMICS VALUES INVENTORY (EVI)

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THE ECONOMICS VALUES INVENTORY

SCALE 1. THE FREE ENTERPRISE SYSTEM (Support for free enterprise system)

1. Resources are always limited, and we must make hard choices about the best way to use them.
2. Profits are essential to our country's economic health.
3. Our society owes much to the contributions of business.
4. If workers want higher wages, they must work harder and produce more.
5. People who blame other people or society for their problems are just copping out.
6. My freedom to choose my own occupation is very important to me.
7. It's the duty of people to do their jobs the best they can.
8. Competition between businesses makes for the lowest prices.
9. A company deserves its profits when they come as the result of doing the best job for less money.
10. If you have a valuable skill, you'll get ahead in our society.
11. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone.
12. Our economy needs more people who are willing to save for the future.

SCALE 2. BUSINESS (Trust in business)

13. Most businesses won't sell products they think are unsafe.
14. Government should listen more to what the business community has to say.
15. Businesses could provide more jobs, goods, and services if they didn't have to pay so much in taxes.
16. Advertising helps consumers to make intelligent choices.
17. Most people like their jobs.

SCALE 3. PSYCHOLOGICAL: PERSONAL ECONOMIC EFFICACY (Alienation and powerlessness)

18. It's no use worrying about the economy; I can't do anything about it anyway.

19. Getting ahead is mostly a matter of luck.

20. It's foolish to do more than you have to in a job.

21. Having the freedom to start my own business really means having the freedom to take advantage of others.

22. Being in business means taking unfair advantage of others.

23. Profit is a sign that someone is being taken advantage of.

24. The way our economic system is set up, nobody has a chance to get ahead any more.

SCALE 4. GOVERNMENT ROLE IN SOCIAL WELFARE (Government is responsible)

25. It is the responsibility of the government to take care of people who can't take care of themselves.

26. The poor and the ill have a right to help from the government.

*27. A person who cannot find a job has only himself to blame.

28. It should be the duty of government to be sure that everyone has a secure job and a decent standard of living.

29. The unemployed shouldn't blame themselves for their situation: it's the fault of the economic system.

*30. Taking care of the poor and the sick is the job of families and churches, not the job of the government.

SCALE 5. GOVERNMENT ROLE IN SETTING PRICES (Against government role)

*31. Companies should only be allowed to charge a government-controlled price for their products

32. It's not the business of the government to control prices.

SCALE 6. UNIONS (Against powerful unions)

33. Unions are too powerful.

*34. We'd all be better off if labor unions were stronger.

35. Employers should have the right to hire non-union workers if they want to.

---

* Indicates reverse scoring item.

SCALE 7. TREATMENT OF WORKERS (Workers' treatment is fair)

36. The average worker today is getting his or her fair share.

*37. The average worker is getting less than his or her fair share.

*38. Most companies don't give employees a fair share of what the company earns.

39. Most companies give employees a fair share of what the company earns.

SCALE 8. THE ECONOMIC STATUS QUO (Against the status quo)

40. America's wealth is far too unequally shared.

41. The situation of the average person is getting worse, not better.

42. There are few real opportunities for the average person to start a business in America today.

43. We need a way to make incomes more equal in this country.

44. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

---

* Indicates reverse scoring item.

APPENDIX 2:

THE EVI IN A FORM FOR CLASSROOM USE

THE ECONOMICS VALUES INVENTORY

The Economics Values Inventory (EVI) is a self-administered measure of attitudes and values concerning economic issues, for use with junior-high-school-age youth (seventh, eighth, and ninth graders). It was developed with a diverse sample of almost 1100 youth from 35 classroooms in all regions of the country.

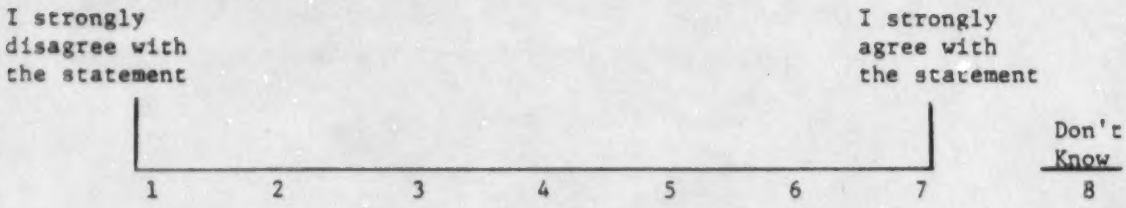
The EVI consists of eight scales, each measuring values in a different substantive area within the general topic of economics. The scales were empirically derived from student responses to a large pool of items, using factor analytic techniques. Scale reliabilities (Cronbach's alpha) range from .5 to .8. Strong evidence of the construct validity of the EVI is found in its sensitivity to values differences in different criterion subgroups of students, such as youth of different socio-economic backgrounds; with different degrees of economic knowledge; and with different amounts of personal experience with the economy.

The EVI is easily administered in a single class period. It yields eight values scores, and scores are easily computed by summing the responses to all items on a particular scale and dividing that sum by the total number of items in the scale, i.e., by computing an average of the scale item responses.

The research on the EVI indicates the necessity of including the somewhat lengthy introduction to the items that appears below. The introduction is important because it establishes a common frame of reference and shared vocabulary for the youthful respondents.

On the following pages the scales that comprise the Economics Values Inventory are first presented, scale-by-scale. Then the EVI, in the form in which we recommend it be administered in the classroom, is shown.

ECONOMICS VALUES INVENTORY



On the next three pages there are statements that you may agree or disagree with. We're interested in learning about your feelings concerning these statements. All of them have to do with the American economy, or how we make, buy, and sell things. We are all part of the economy. Businesses and government are part of the economy too.

When you buy a record or ride on a bus or go to the dentist, you are taking part in the economy. When a business makes something, advertises its product, or sets a price, it is taking part in the economy. The government takes part in the economy too, when it provides a service such as delivering the mail, or when it makes rules that businesses must follow. When you answer the questions below, it will give us a chance to learn what you are feeling about economic issues.

Here's an example:

_____ If I shop and compare before I buy, I can save money.

If you feel strongly that "If I shop and compare before I buy, I can save money," you would write a "7" in the space before that statement. If you disagree slightly you would write a "3" next to the statement. If your feelings are no stronger one way than the other, you would write a "4" next to the statement.

Maybe the statement is one you don't understand, or is about something you've never really thought about and have no feelings about. If so, write an "8" for "Don't Know" next to the statement.

There are no right or wrong answers here. Please just tell us how you feel, and what you believe, about each statement. Now let's turn to the next page--and begin!

ECONOMICS VALUES INVENTORY

I strongly disagree with the statement — I strongly agree with the statement — Don't Know

1 2 3 4 5 6 7 8

_____ 1. The unemployed shouldn't blame themselves for their situation: it's the fault of the economic system.

_____ 2. Resources are always limited, and we must make hard choices about the best way to use them.

_____ 3. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

_____ 4. The average worker today is getting his or her fair share.

_____ 5. The average worker today is getting less than his or her fair share.

_____ 6. It's the duty of people to do their jobs the best they can.

_____ 7. America's wealth is far too unequally shared.

_____ 8. There are few real opportunities for the average person to start a business in America today.

_____ 9. The poor and the ill have a right to help from the government.

_____ 10. It is the responsibility of government to take care of people who can't take care of themselves.

_____ 11. Unions are too powerful.

_____ 12. We need a way to make incomes more equal in this country.

_____ 13. Profits are essential to our country's economic health.

_____ 14. Our society owes much to the contributions of business.

_____ 15. Being in business means taking unfair advantage of others.

_____ 16. The way our economic system is set up, nobody has a chance to get ahead any more.

_____ 17. My freedom to choose my own occupation is very important to me.

_____ 18. Competition between businesses makes for the lowest prices.

_____ 19. Businesses could provide more jobs, goods and services if they didn't have to pay so much in taxes.

_____ 20. It's foolish to do more than you have to in a job.

ECONOMICS VALUES INVENTORY

I strongly disagree with the statement — I strongly agree with the statement — Don't Know

1 2 3 4 5 6 7 8

_____ 21. A person who cannot find a job has only himself to blame.

_____ 22. Most companies don't give employees a fair share of what the company earns.

_____ 23. Most companies give employees a fair share of what the company earns.

_____ 24. Having the freedom to start my own business really means having the freedom to take advantage of others.

_____ 25. It's no use worrying about the economy; I can't do anything about it anyway.

_____ 26. Our economy needs more people who are willing to save for the future.

_____ 27. A company deserves its profits when they come as the result of doing the best job for less money.

_____ 28. If workers want higher wages, they must work harder and produce more.

_____ 29. Companies should only be allowed to charge a government-controlled price for their products.

_____ 30. Profit is a sign that someone is being taken advantage of.

_____ 31. Advertising helps consumers to make intelligent choices.

_____ 32. Most people like their jobs.

_____ 33. Getting ahead is mostly a matter of luck.

_____ 34. The situation of the average person is getting worse, not better.

_____ 35. We'd all be better off if labor unions were stronger.

_____ 36. If you have a valuable skill, you'll get ahead in our society.

_____ 37. Taking care of the poor and the sick is the job of families and churches, not the job of government.

_____ 38. It's not the business of government to control prices.

_____ 39. Most businesses won't sell products they think are unsafe.

_____ 40. It should be the duty of the government to be sure that everyone has a secure job and a decent standard of living.

ECONOMICS VALUES INVENTORY

I strongly disagree with the statement

I strongly agree with the statement

Don't Know

1 2 3 4 5 6 7 8

_____ 41. Government should listen more to what the business community has to say.

_____ 42. Employers should have the right to hire non-union workers if they want to.

_____ 43. People who blame other people or "society" for their economic problems are just copping out.

_____ 44. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone.

APPENDIX 3:

SENIOR HIGH SCHOOL VERSION OF THE EVI

SENIOR HIGH SCHOOL VALUES INVENTORY

1. PERSONAL ECONOMIC POWER

1. Being in business means taking unfair advantage of others.
2. Having the freedom to start my own business really means having the freedom to take unfair advantage of others.
3. Profit is a sign that someone is being taken advantage of.
4. Getting ahead is mostly a matter of luck.
5. It's no use worrying about the economy; I can't do anything about it anyway.
6. The way our economic system is set up, nobody has a chance to get ahead anymore.
7. It's foolish to do more than you have to in a job.

2. HOW WORKERS ARE TREATED

* 8. Most companies give employees a fair share of what the company earns.
9. Most companies don't want to give employees a fair share of what the company earns.
* 10. The average worker today is getting his or her fair share.
11. The average worker today is getting less than his or her fair share.

3. "PATRIOTIC" BUSINESS ATTITUDES

12. My freedom to choose my own occupation is very important to me.
13. It's the duty of people to do their jobs the best they can.
14. Business will do anything for a profit.
15. The greatness of America is based on business.
16. Competition between businesses makes for the lowest prices.
17. If only our economy were reorganized, there would be more than enough for everybody.

4. TECHNICAL INNOVATION AND SPECIALIZATION

18. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone.
19. A company deserves its profits when they come as the result of doing the best job for less money.
20. We should use new machines whenever they can take the place of dirty work that people have to do now.
21. Businesses that make a new product take a risk; if people like their product, a business deserves its profits.
22. If you have a valuable skill, you'll get ahead in our society.

* Indicates reverse scoring item.

5. BUSINESS

23. There are practically no services which government can provide which businesses couldn't provide better.

24. Only the producer of a quality product at a fair price can survive in our competitive economy.

25. Most people like their jobs.

26. Government should listen more to what the business community has to say.

27. Business should be allowed to charge as much as people are willing to pay.

28. Most businesses won't sell products they think are unsafe.

29. Businesses could provide more jobs, goods and services if they didn't have to pay so much in taxes.

30. Advertising helps consumers to make intelligent choices.

6. THE ECONOMIC STATUS QUO

31. The situation of the average person is getting worse, not better.

32. America's wealth is far too unequally shared.

33. There are few real opportunities for the average person to start a business in America today.

34. We need a way to make incomes more equal in this country.

35. The way our economic system is set up, nobody has a chance to get ahead any more.

36. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

7. GOVERNMENT ROLE IN SOCIAL WELFARE

37. It is the responsibility of the government to take care of people who can't take care of themselves.

* 38. Taking care of the poor and the sick is the job of families and churches, and not the job of government.

39. The poor and the ill have a right to help from the government.

* 40. A person who cannot find a job has only himself to blame.

41. The unemployed shouldn't blame themselves for their situation; it's the fault of the economic system.

42. It should be the duty of government to be sure that everyone has a secure job and a decent standard of living.

* Indicates reverse scoring item.

8. ECONOMIC INTERDEPENDENCE

43. In our specialized economy, each person depends on the efforts of many other people for his or her economic well being.

44. Our society owes much to the contribution of business.

45. Resources are always limited, and we must make hard choices about the best way to use them.

46. Profits are essential to our country's economic health.

9. PRICE CONTROLS

* 47. It's not the business of government to control prices.

48. Companies should only be able to charge a government-controlled price for their products.

49. The government should decide which goods are produced.

10. WORK ETHIC

50. People who blame other people or "society" for their problems are just copping out.

51. If workers want higher wages, they must work harder and produce more.

11. UNIONS

* 52. We'd all be better off if unions were stronger.

53. Unions are too powerful.

54. Employers should have the right to hire non-union workers if they wnat to.

* Indicates reverse scoring item.

APPENDIX 4:

INDIVIDUAL TEST ITEM MEANS FOR JUNIOR HIGH SCHOOL AND SENIOR HIGH SCHOOL RESPONDENTS

ITEM-BY-ITEM MEANS

THE ECONOMICS VALUES INVENTORY

MEANS		
Jr. High*	Sr. High**	
		SCALE ONE: SUPPORT FOR THE FREE ENTERPRISE SYSTEM
6.2	6.0	1. Resources are always limited, and we must make hard choices about the best way to use them.
5.5	6.0	2. Profits are essential to our country's economic health.
4.6	5.2	3. Our society owes much to the contributions of business.
5.2	5.0	4. If workers want higher wages, they must work harder and produce more.
5.0	5.2	5. People who blame other people or society for their problems are just copping out.
6.6	6.8	6. My freedom to choose my own occupation is very important to me.
6.5	6.5	7. It's the duty of people to do their jobs the best they can.
5.7	5.8	8. Competition between businesses makes for the lowest prices.
5.4	5.6	9. A company deserves its profits when they come as the result of doing the best job for less money.
5.2	5.4	10. If you have a valuable skill, you'll get ahead in our society.
5.2	5.6	11. Groups of people with specialized skills, working together, can produce better products than people working alone.
5.6	5.2	12. Our economy needs more people who are willing to save for the future.
		SCALE TWO: TRUST IN BUSINESS
4.3	4.3	13. Most businesses won't sell products they think are unsafe.
5.5	5.1	14. Government should listen more to what the business community has to say.
5.2	4.7	15. Businesses could provide more jobs, goods, and services if they didn't have to pay so much in taxes.
4.1	4.0	16. Advertising helps consumers to make intelligent choices.
4.6	3.7	17. Most people like their jobs.

*N=452 (Pilot Study Respondents)
**N=207

MEANS		
Jr. High	Sr. High	
		SCALE THREE: ECONOMIC ALIENATION AND POWERLESSNESS (PSYCHOLOGICAL)
3.1	2.8	18. It's no use worrying about the economy; I can't do anything about it anyway.
2.8	3.0	19. Getting ahead is mostly a matter of luck.
3.0	2.4	20. It's foolish to do more than you have to in a job.
2.4	2.3	21. Having the freedom to start my own business really means having the freedom to take advantage of others.
2.7	2.5	22. Being in business means taking unfair advantage of others.
2.6	2.1	23. Profit is a sign that someone is being taken advantage of.
3.2	2.6	24. The way our economic system is set up, nobody has a chance to get ahead any more.
		SCALE FOUR: GOVERNMENT IS RESPONSIBLE FOR SOCIAL WELFARE
4.7	4.9	25. It is the responsibility of the government to take care of people who can't take care of themselves.
5.7	5.8	26. The poor and the ill have a right to help from the government.
3.1	3.3	*27. A person who cannot find a job has only himself to blame.
4.4	4.3	28. It should be the duty of government to be sure that everyone has a secure job and a decent standard of living.
3.8	3.8	29. The unemployed shouldn't blame themselves for their situation: it's the fault of the economic system.
2.7	2.8	*30. Taking care of the poor and the sick is the job of families and churches, not the job of the government.
		SCALE FIVE: AGAINST A GOVERNMENT ROLE IN SETTING PRICES
3.6	3.5	*31. Companies should only be allowed to charge a government-controlled price for their products
3.8	4.1	32. It's not the business of the government to control prices.
		SCALE SIX: AGAINST POWERFUL UNIONS
4.3	4.2	33. Unions are too powerful.
3.6	3.7	*34. We'd all be better off if labor unions were stronger.
5.4	5.2	35. Employers should have the right to hire non-union workers if they want to.

* Indicates reverse scoring item.

MEANS Jr. High	MEANS Sr. High	
		SCALE SEVEN: WORKERS RECEIVE FAIR TREATMENT
3.6	3.5	36. The average worker today is getting his or her fair share.
4.5	4.6	*37. The average worker is getting less than his or her fair share.
4.8	5.0	*38. Most companies don't give employees a fair share of what the company earns.
3.5	3.2	39. Most companies give employees a fair share of what the company earns.
		SCALE EIGHT: AGAINST THE ECONOMIC STATUS QUO
4.7	4.8	40. America's wealth is far too unequally shared.
4.7	4.7	41. The situation of the average person is getting worse, not better.
4.5	4.0	42. There are few real opportunities for the average person to start a business in America today.
4.9	4.7	43. We need a way to make incomes more equal in this country.
5.1	4.9	44. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

* Indicates reverse scoring item.